



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/700,076

11/03/2003

Rudy Kraus

60210 (50282)

3730

7590

12/22/2005

Charles N J Ruggiero Esq  
Ohlandt Greeley Ruggiero & Perle LLP  
One Landmark Square 10th Floor  
Stamford, CT 06901-2682

EXAMINER

PONOMARENKO, NICHOLAS

ART UNIT

PAPER NUMBER

2834

DATE MAILED: 12/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/700,076

Applicant(s)

KRAUS, RUDY

Examiner

Nicholas Ponomarenko

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-43 and 47-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 18-25, 27-32, 34-43 and 47-49 is/are rejected.
- 7) ☒ Claim(s) 26 and 33 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 18-43 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

2. A new drawing, Figure 7, was received on November 9, 2005. The examiner has not approved this drawing because a new block diagram contradicts schematic of Figure 3, which this block diagram supposed to represent. Specifically, Figure 3 shows interconnections between different high voltage sources and the DC-DC converters (as shown on Fig.3A and Fig.3b), but the block diagram of Figure 7 does not reflect these connections properly.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because the same reference characters are used on Fig.3A and Fig.3B to designate physically different equipment, e.g., 312 for the generator on Fig.3A and 312 for the generator on Fig.3B, etc.
4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "fuel cell" and the "UPS" (claims 26 and 33) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

5. The disclosure is objected to because of the following informalities: Description of the drawings (Figures 1, 2, 3 and 5) uses language "somewhat schematic" which is not understood and is confusing. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 18, 19, 31, and 47 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for DC-DC converters with low voltage values from 23 to 48 VDC, does not reasonably provide enablement for DC-DC converter with low voltage values less or equal to about 1/10 of high voltage, as claimed. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims. See Figure 3A and 3B where DC-DC converter (item 331) shows 600/48-23 VDC, which is not 1/10 ratio, and the same values are taught in the specification on page 6, line 7 and on page 8, line 16.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2834

9. Claims 18-25, 27-32, 34-43 and 47-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bailey et al. (US 5,844,329) and further in view of Pinkerton et al. (US 6,463,738) and Kageyama (US 5,612,581).

Applicant's power distribution system has a plurality of power sources, which are feeding DC-DC converters, which in turn provide DC power to the load(s). All claimed limitations are *off-the-shelf* components and the novelty is in the arrangements of the known elements in a new scheme of power distribution.

Bailey et al. teaches a scheme for providing DC power for electrical equipment with multiple DC-DC step-down converters, which convert high DC voltage to low DC voltage where low DC voltage is less or equal to about 1/10 of high DC voltage and the scheme of Bailey et al. has the same circuit parameters, as those claimed by the applicant in claims 18-21, 23-25, 28, 30-32, 35, 37, 39, 41, 47 and 48, but Bailey et al. do not teach a flywheel as a power source, or a rectifier as a power source, and some additional parameters of distribution scheme, as 500 to 600 VDC for high voltage side, 30KW power output and computer or telecommunication apparatus, or "not a switching mode power supply", as different interchangeable loads.

Kageyama teaches a rectifier (1-1) as AC-DC power source for the DC-DC converter. Pinkerton et al. teaches a flywheel as a power source. Additionally, *off-the-shelf items* are well known in the art and their incorporation into power distribution scheme involves a routine skill in the art.

It would be a common knowledge to select specific voltages for power supply or for power outputs, and/or different loads, and it would be obvious to one having ordinary

skill in the art at the time the invention was made, since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to design a power distribution system as taught by Bailey et al. and to add additional power distribution sources as taught by Kageyama and Pinkerton et al. and to select values for incoming voltages and power output size in order to have a reliable distribution system with proper distribution parameters.

#### ***Allowable Subject Matter***

10. Claims 26 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, and overcome objection to the drawings and specification.

**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant(s) disclosure.
12. When the claims are amended, applicant(s) should state in detail where in the original disclosure or in the drawings the amended features find support. **No new matter may be introduced.**
13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicholas Ponomarenko whose telephone number is (571) 272- 2033, Fax: (571) 273-2033, or to his SPE Darren Schuberg – (571) 272-2044.
14. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center 2800 Customer Service  
Phone: (571) 272-2815

np  
December 15, 2005



**Nicholas Ponomarenko**  
**Primary Examiner**  
**Technology Center 2800**